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Extension Service



Review

VOL. 5, No. 9

SEPTEMBER 1934



Facts from the laboratory are put to practical use on the farm by the extension agent. Here the scientist studies the alfalfa stem nematode and the county agent applies the results of the study to the practical control of this parasite.

**FROM > >
LABORATORY
TO > > >
FARM > >**



ISSUED MONTHLY BY THE EXTENSION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C.



In This Issue

ILLINOIS in 1928 launched an agricultural adjustment project in which research and extension agencies have cooperated actively in analyzing the farming situation and making pertinent facts available to farmers that would help them to decide intelligently what adjustments to make in their farming operations. Something of the background of this project, how it has been developed, and the results that have been obtained are explained in the article entitled "A Long-time Adjustment Program."

SECRETARY WALLACE discusses the possibilities and difficulties in exporting farm crops. He points out that opportunities for increased export of particular commodities vary widely. He sees good possibilities for improving our foreign trade in cotton, fruit, and tobacco, but believes wheat and pork products to be in a less favorable position with reference to export possibilities. He thinks, however, that our tariff bargaining program may be of considerable help in increasing foreign demand.



PARENTS, teachers, home demonstration agents, county nurses, and the children themselves are cooperating in the endeavor to improve the health of children in Virginia and South Carolina. Hot school lunches play an important part in the campaign for better nutrition.

The gains in weight and health of the children show that the efforts of those aiding in the work have not been in vain.

RURAL life in Louisiana is more attractive to citizens since they organized 383 active community organizations. By uniting their efforts to common aims and goals they have obtained good highways, better schools, rural parks, choruses, orchestras, dramatic clubs, and athletic teams, according to Mary Mims, extension rural sociologist.

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DIRECTOR RAMSOWER of the Ohio Extension Service, says that extension workers must attack research in a new and vigorous manner and ask themselves such pertinent questions as "Are we doing the right things in the right way? What projects that have long found places in our programs may safely be abandoned? Are we driving hard at basic needs of people or merely skirting the fringes? These are general fields in each of which there are scores of specific problems calling for painstaking studies."

THE EXTENSION SERVICE REVIEW is issued monthly by the EXTENSION SERVICE of the United States Department of Agriculture, Washington, D.C. The matter contained in the REVIEW is published by direction of the Secretary of Agriculture as administrative information required for the proper transaction of the public business. The REVIEW seeks to supply to workers and cooperators of the Department of Agriculture engaged in extension activities, information of especial help to them in the performance of their duties, and is issued to them free by law. Others may obtain copies of the REVIEW from the Superintendent of Documents, Government Printing Office, Washington, D.C., 5 cents a copy, or by subscription at the rate of 50 cents a year, domestic, and 75 cents, foreign. Postage stamps will not be accepted in payment.

C. W. WARBURTON, Director

C. B. SMITH, Assistant Director

On The Calendar

Ak-Sar-Ben Livestock Show, Omaha, Nebr., October 28–November 3.

Outlook Meetings, Bureau of Agricultural Economics, Washington, D.C., October 29–November 3.

National Grange Convention, Hartford, Conn., November 14–23.

Rural Homemakers Conference, Washington, D.C., November 16.

American Country Life Association, Washington, D.C., November 16–19.

Great Western Livestock Show, Los Angeles, Calif., November 17–22.

Association of Land-Grant Colleges and Universities, Washington, D.C., November 19–21.

International Livestock Exposition, Chicago, Ill., December 1–8.

Fifth Annual Session of the National Cooperative Extension Workers' Association, Chicago, Ill., December 6.

Tenth Annual 4-H Club Baby Beef Show, Union Stock Yards, Nashville, Tenn., December 12–14.

Thirty-eighth Annual Convention of American National Livestock Association, Rapid City, S.Dak., January 9–11.



FARMERS in New Hampshire have found that by harvesting their hay in June they obtain first-class roughage to feed their livestock. To improve their hay they turned under poor hay fields and reseeded them to alfalfa and clover. The annual legumes which are now being raised also help to increase the production of milk.

EVERYONE is interested in whether the food supply will be ample for the winter months and what the advance will be in the cost of living. Nils A. Olsen, Chief, Bureau of Agricultural Economics, and Louis H. Bean, Economic Adviser, Agricultural Adjustment Administration, tell us what they believe will be the probable future trends in living costs and food supplies.

L. A. SCHLUK, Acting Editor

A Long-time Adjustment Program

Research and Extension in Illinois Contribute to Agricultural Adjustment

NEW as it may seem to some, the "Back to grass and forage" movement in Illinois really started as far back as 1876—58 years ago.

That year there were laid out on the campus of the College of Agriculture, University of Illinois, the Morrow plots, which have since become the oldest experimental soil plots in the United States.

This year farmers of Illinois are retiring approximately 1,500,000 acres of former wheat and corn land from normal production under the Agricultural Adjustment Administration program. This is a striking figure. What is even more striking is to try to estimate how much corn and wheat land they would have had to retire in adjusting their production if it had not been for the Morrow plots and other long-continued teachings of the College of Agriculture, University of Illinois, and its extension service.

The Morrow plots were laid out at a time when the rich prairie soils were still thought to be of everlasting fertility. Consequently the common practice in those days was continuous cropping with corn alone or with corn and oats. How acute the agricultural adjustment problem would be today if this practice had been continued remains for all to guess. Fortunately, the Morrow plots were successful in demonstrating the evils of soil mining. They were just as successful in demonstrating the value and merit of good crop rotations, including legumes, in maintaining soil fertility, and in adjusting agriculture to more balanced systems of production.

Farming Type Areas

Far from being a State of continuous corn or corn-oats croppers, Illinois has so adjusted and specialized its agricul-

ture that today there are eight distinct farming type areas in the State. In each of these areas farmers for years have been adjusting and balancing their cropping systems, changing their varieties to grow higher quality crops, alternating their methods to reduce production costs, and otherwise following the teachings of the agricultural extension service.

These adjustments, changes, and shifts have been stimulated by the farm accounting project of the University of



The Morrow plots at the College of Agriculture, University of Illinois, which really mark the beginning of the agricultural adjustment effort in that State. Laid out in 1876, the plots have stood for 58 years as a striking demonstration of the evils of soil mining while at the same time demonstrating the value and merits of good crop rotations, including legumes in maintaining soil fertility and in adjusting farming to more balanced systems of production. Begun at a time when rich prairie soils were still thought to be of everlasting fertility, the Morrow plots have consistently foretold many of the present agricultural problems. How many thousands of farmers have seen and studied the lessons cannot even be estimated.

Illinois, College of Agriculture. This project has now passed into its twentieth year, and there are now in the files of the college's farm management division a total of approximately 20,000 individual farm records. Out of the study of these records have come reliable guides for adjustments and changes which will make farming more profitable and more efficient in each of the different farming-type areas.

That farmers have followed these guides is indicated by the fact that the wheat acreage, for instance, dropped from a total of 4,103,000 acres in the peak year



Dean H. W. Mumford who devised and launched the agricultural adjustment project in Illinois in 1928.

of 1919 to 1,721,000 acres in 1933, before the Agricultural Adjustment Administration program took effect. The average annual acreage for the 5 years from 1929-33 was 396,200 acres less than the average annual acreage for the 5 years from 1910-14, a 17 percent reduction.

The State's alfalfa acreage jumped from a total of only 89,000 acres in 1919 to 337,000 acres in 1933, an increase of 248,000 acres, or more than 277 percent. Soybean plantings for hay advanced from 12,000 acres in 1919 to 278,000 acres in 1933, an increase of 266,000 acres, or more than 2,216 percent. The acreage of soybeans in Illinois for all purposes in 1934 is estimated at 966,000 acres, an increase of nearly 400,000 acres over 1933. Total annual legume hays at the same time have increased from 72,000 acres in 1919 to 456,000 in 1932, or a gain of 384,000 acres.

Comparing acreages during the 5 years of 1929-33 with those in the prewar years of 1910-14, it is found that the average annual acreage of such surplus crops as corn and wheat, together with oats, rye, and buckwheat, was 1,461,000 acres less during the past half decade than in the so-called "normal days" before the World War. What is just as striking is that during the same time Illinois farmers made an increase of 1,413,000 acres in the average annual acreage of such soil-building, legume crops as alfalfa, sweetclover, cowpeas, and soybeans.

Some of these legumes, now among the most important crops grown in the State, were new and relatively untried 25 years ago. They would not be the success that they are now and agriculture would not be as well adjusted as it is had it not been for the research work and extension teachings of the College of Agriculture, University of Illinois. Such work not only has kept surpluses from being higher than they otherwise would have been; it has helped overcome shortages in crops like alfalfa hay.

Soil Fertility

Seed for at least some of these results was sown in the very early work of the late Dr. Cyril G. Hopkins, who worked untiringly for the Illinois system of permanent soil fertility, including the rotation of crops to include legumes and the application of limestone, manure, and phosphate. One of the earliest teachings of the college was that 25 percent of the cultivated farm land should be in legumes if a balanced, permanent system of farming is to be maintained. When this goal has been reached, the problem of making agricultural adjustments will not be as acute as it has been.

Added impetus was given to the early adjustments when the experiment station of the College of Agriculture, University of Illinois, revealed that soils of the State were generally lacking in alfalfa bacteria, without which the greatest of all forage crops cannot be grown successfully. At the same time the college pointed out that the bacteria of the common rank-growing sweetclover could be used for alfalfa inoculation, but that limestone was needed on the acid soils before the nitrogen-gathering bacteria could live and flourish on the roots of the leguminous plants. On the strength of an extension service program covering liming and inoculation, Illinois became one of the ranking States in alfalfa production, with 337,000 acres devoted to this crop in 1933.

It was in 1928, however, that a definite course in planned agricultural adjustments began to take form in Illinois. At a conference of farm advisers, vocational teachers, and advisory committees of the college and experiment station on June 20 of that year, Dean H. W. Mumford proposed a series of conferences to be held in various parts of the State for the purpose of discussing certain advisable agricultural adjustments.



During the past decade and a half, Illinois farmers have applied more than 7,000,000 tons of limestone, making it possible for them to grow more than 850,000 acres of sweetclover and nearly 300,000 acres of alfalfa annually.

were held in the eight principal farming-type areas of the State. These meetings were followed by a series of outlook conferences held in the spring of 1929 at which the adjustments were again discussed in light of the changing economic conditions. Similar regional outlook conferences have been held each spring since that time.

Of the lessons learned in these initial efforts, one of the most important was that education and extension work must necessarily go along with adjustments. From the first it was evident that a number of local and individual problems had to be cleared away before certain changes could be made in cropping systems. Illinois farmers needed additional information on soil testing, liming, inoculation, adaptable varieties of replacement crops, the use of acid-tolerant legumes, utilization of new crops, and production and harvesting problems.

With the aid of field testing kits, extension specialists from the college and farm advisers carried on educational

Combining Enterprises

Among the objectives of these conferences, he pointed out, should be to determine what combinations of crop and animal enterprises will yield the greatest returns from land, labor, and capital, under the existing geographical and probable near-future economic conditions; to determine what specific changes in production methods will profitably increase the returns of an area, and to determine the most effective procedure of bringing about the best utilization of land for crops, pastures, and forests.

The various departments at the college immediately began the collection and preparation of data relative to the objectives set forth by Dean Mumford, and in October the adjustment conferences

campaigns relative to the need for liming certain soils and to show farmers how to determine which fields were sweet enough for the production of alfalfa, red and sweetclover. This work, together with earlier efforts, has made Illinois a leading State in the use of agricultural limestone. During the past decade and a half, Illinois farmers have applied more than 7,000,000 tons of limestone, making it possible for them to grow more than 850,000 acres of sweetclover and nearly 300,000 acres of alfalfa annually, in addition to the more common red clover.

While liming makes crop adjustments easier, the desire to make adjustments has brought about an increase in liming. C. M. Linsley, soils extension specialist at the College of Agriculture, University of Illinois, is of the opinion that as a result of the Agricultural Adjustment Administration wheat and corn-hog programs, 1934 may become another good year in the application of limestone.

Soon after planned adjustments got under way in Illinois in 1928, the experiment station announced the development of a simple field test for available phosphorus. Since it was known that certain legumes must have minimum amounts of phosphorus available in the soil before they can do their best, this new field test came to the aid of many farmers in their adjustment efforts.

Lespedeza

In areas where the soil is normally too acid for the production of alfalfa, sweet and red clover, and where farmers were financially unable to apply the necessary limestone, the agricultural college brought forth 11 years' results on lespedeza. The information included the varieties best adapted to certain sections of the State, as well as the designations of certain counties where satisfactory results could not be expected from the lespedezas tested so far.

The acreage adjustments that have been underway are at least partially responsible for Illinois becoming the leading soybean State in the Union. Fifteen years ago there were only 14,000 acres of soybeans in the State, whereas in 1934 there were 966,000 acres. In other words, during those years Illinois farmers adjusted their acreages* of wheat, corn, and other crops so radically that the acreage of soybeans was multiplied

(Continued on page 142)

What Farm Products Can We Export?

HENRY A. WALLACE

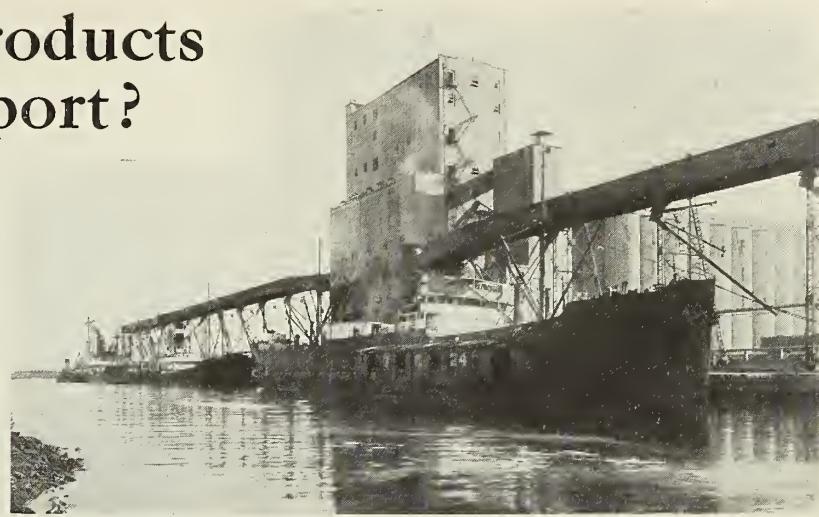
Secretary of Agriculture

WHAT ARE the possibilities of restoring foreign markets for farm products, and for which products are the chances most promising?

Past performance does not necessarily tell us what future performance will be. Earlier trade figures must therefore be used with reservations. Because we were able to export nearly 2 billion dollars' worth of agricultural products annually in the predepression era—at a time when our exports were being inflated by over-zealous foreign lending, the implications of which, in terms of increased imports of goods and services, we were unwilling to face—it does not follow that we can expect to export as much in terms either of quantity or value in the future. Even the importation of a larger quantity of goods than we have heretofore been willing to import and the revival of foreign lending of a more judicious type may not suffice to restore the purchasing power of foreign countries to the artificial level to which it was hoisted during the earlier period of reckless lending. Moreover, it is virtually certain that some of the trade that has been lost is permanently lost, either to competitors in other exporting countries or to producers in the importing countries. Some of the expansion of agricultural output that has been artificially stimulated in the importing countries seems likely to persist. Nevertheless, with proper reservations, it is worth while looking at the earlier trade figures to see what our past performance has been.

Previous Exports

In 1922-26 we exported annually almost 2 billion dollars worth of agricultural products. Of this total, nearly half went to the United Kingdom and Germany, the former taking 30.6 percent, the latter 14.8 percent. Another 30 percent was distributed between France, Italy, Japan, Canada, and Netherlands, in ratios ranging from 7.1 percent for France down to 4.7 percent for Netherlands. In 1933, when the



Loading boats with wheat for export at Baltimore, Md.

total value of our exports of farm products was but a third of what it had been in 1922-26, the distribution of the trade remained broadly similar to what it had been previously, except in the case of Japan, whose share increased from 6.0

Last month Secretary Wallace discussed the general situation in regard to reopening foreign markets for farm products. He described what he calls the "planned middle course" which involves a foreign agricultural policy somewhere between an intensely nationalistic and an internationalistic policy. Continuing this theme in the following article the Secretary reviews the facts and the possibilities for an export market for each of the principal export crops.

to 13.1 percent. It is clear, therefore, that while Japan, China, and a number of other countries outside of Europe cannot be overlooked, the great potential outlet for our farm products remains, as it has always been, the industrial countries on the other side of the Atlantic. To the United Kingdom alone we sent some \$597,000,000 worth of agricultural products annually in 1922-26, but only \$192,000,000 worth in 1933. To Germany we sent \$288,000,000 on the average in 1922-26, but only \$103,000,000 worth in 1933. If, by making it possible for foreign countries to buy more and to pay better prices, we can restore even a substantial part of this lost trade with the United Kingdom, Germany, and the others, farmers in the United States will surely be tremendously benefited.

Opportunities for Increased Exports

With respect to particular commodities the opportunities for increased export vary widely. As regards some, our competitive position seems to have been permanently weakened; while as to others it appears to be well sustained and merely awaiting a revival of foreign purchasing power and the granting of freer access to foreign markets.

For our greatest agricultural export, namely cotton, it is chiefly a matter of purchasing power rather than of trade barriers. In this case the significance of the tariff bargaining program upon which we are about to enter arises from its relation to world economic revival as it affects the European cotton textile industry. In contrast to our other agricultural exports, cotton has been directly restricted by trade barriers in only one country, namely Germany, and it is not yet clear whether the German restrictions will reduce the consumption of cotton, or whether they are merely intended to promote a policy of hand-to-mouth buying. On the whole our cotton exports have been restricted by the low level of consumers' incomes in foreign countries rather than by trade restrictions. Tariff bargaining, insofar as it increases world trade, will increase world business activity and purchasing power and hence will strengthen the foreign demand for cotton. In spite of some signs of expansion of cotton growing in areas outside the United States, our great comparative advantage in the growing of this crop will enable us to share heavily in any revival of demand.

Exports of Fruits

More direct are the possible benefits or tariff bargaining for our other important export crops, since most of them are subjected to serious trade restriction. The opportunities, of course, vary considerably with the commodity. Among those in a more favorable position is fruit. Trade barriers affecting fruit have had but little effect on production in the importing countries. In many cases our fruit exports have been subjected to restrictions simply as luxuries especially suitable for revenue taxation, or else largely excluded by countries anxious, for financial reasons, to cut down the total of their imports. Despite such restrictions our exports of fresh fruits have held up remarkably well in quantity; but a moderation of existing restrictions would greatly improve the prices received for them.

For tobacco, also, the possibilities seem good. It is true that Government intervention has resulted in a marked increase of production in a number of countries to which we were formerly large exporters, as for example Italy. Nevertheless we continue to possess important advantages in the production of certain types of tobacco. And as high duties, together with other forms of import restriction (especially restriction by Government monopolies—a form of restriction not beyond the scope of our recently granted tariff bargaining authority) have been an important factor in the export situation, it ought to be possible to secure concessions of real value to our tobacco growers.

Serious Obstacles

Because both pork products and wheat have been up against mountainous trade barriers, we should expect these commodities to be particularly promising items for tariff negotiation. But the obstacles are serious.

On the whole, they appear less serious for pork products than for wheat. This is partly because our comparative advantage in pork production has held up rather better than in wheat, this notwithstanding efforts of both importing and exporting countries to develop their pork industry. Probably more important, however, is the fact that foreign trade restrictions in the importing countries, especially in such important markets as the United Kingdom and Germany, have substantially restricted consumption by decreasing imports more drastically than they have increased their domestic production. By tariff negotiation, therefore, it may be possible to increase our ex-

ports to these countries without displacing any great amount of domestic production.

Prospects for Wheat

For wheat the prospects are less favorable for two reasons. The first and more important reason is the increasing comparative advantage of the newer countries. This has little relation to trade barriers; though the tariff preference enjoyed by the British Dominions in the British market should not be overlooked. The other reason is the likelihood that those importing countries that have reached or approached self-sufficiency in wheat supplies will be reluctant to retreat very far from their present position. For this reluctance the reasons are both economic and military. Self-sufficiency in wheat is something to which these countries seem to attach peculiar importance. In the greatest importing area of all, the United Kingdom, the situation is different. For the measures adopted by the British to encourage domestic production have done little to discourage consumption, and while encouraging some expansion of production, have nevertheless left the country dependent upon imports for most of its supplies. Hence there is little that can be done through tariff bargaining to increase total British imports of wheat, and probably not much that can be done to increase our share of the trade; though abandonment of preference to the Dominions would help to some extent.

On the whole it is clear that our tariff bargaining program offers large possibilities in the way of increasing the foreign demand for our agricultural products. What will actually happen remains to be seen.

THE people of Ridenhour township, Stanly County, N.C., have given volunteer labor in the construction of a community building. The county furnished the material, and now the township has a real community center.

MEMBERS of the Weynorcomass Club, a 4-H club of Norfolk County, Mass., recently arranged a unique program at their high school. A "broadcasting" studio was set up, with microphones and loud-speakers, and the program numbers were presented by members of the club. Musical numbers interspersed with "recordings" gave it a real radio atmosphere. It served as training and experience in radiobroadcasting. Members of the club were in charge of the monitor and controlled the volume and tone of the various selections.

4-H Market Day Tour

More than 600 4-H club members of Lane County, Oreg., were the guests of the citizens of Eugene while they were on their annual market-day tour. This market-day tour has been established for several years and has become one of the annual highlights of the 4-H activity in the county.

Recreation and education are well mixed in the program of the tour. The boys and girls are divided into small groups directed by competent leaders. A show was put on for their special benefit at a local theater as their first entertainment. Following this, they visited local markets, stores, industrial plants, and other points of interest. A mock trial at the courthouse, with club members serving as the jury, was enacted by a group of local attorneys.

Many of the most outstanding citizens of the town were introduced to the group, and they expressed their desire that the tour be successful. Special attention was given to the boys and girls by the personnel of the various establishments visited.

Five hundred half pints of milk were donated by the farmers' creamery for the free luncheon which was served at the cafeteria of the fruit growers' association.

Every minute of the day was crowded with new sights and interesting educational features. The program was under the direction of the local business organization in cooperation with the county club agent, R. C. Kuehner.

The tour is not only an interesting recreational activity, but it also promotes learning through the explanation of the various business operations given during the trip. It also demonstrates the management of various types of business and how each one fits into and is a required part of the community life. The club members learn how farm commodities are handled on the market including the processing and selling of such material as it goes through channels of trade.

The tour does much to promote a cooperative and friendly feeling between the citizens of Eugene and the rural youth of Lane County.

FIIFTY-ONE of the 64 parishes of Louisiana are now being served by home demonstration agents, following the recent appointment of 12 new agents, announces Ellen LeNoir, State home demonstration agent.

Research in Extension

H. C. RAMSOWER
Director, Ohio Extension Service



HERE has been a great deal of what we might call practical research in extension work. As each careful worker reviews the results of the past year and contemplates the work of the new year just ahead, he scrutinizes the content and method of his program and makes such changes as experience dictates and circumstances permit. Administrators and supervisors, both Federal and State have been continually alert to new things to be done and to new ways of attacking both old and new projects.

But this is not enough. We must attack research in a new and vigorous manner. We must delve into both the content and method of our programs and plans. We must ask and prepare ourselves to answer such questions as these: Are we doing the right things in the right way? What projects that have long found places in our programs may safely be abandoned? What fields that have been virtually untouched should now be expanded or newly created? Are we driving hard at basic needs of people or merely skirting the fringes? Are methods long pursued carrying us forward in the direction of worthy and fundamental goals in the field of education or do we sacrifice the long-time goal for immediate results? These are general fields in each of which there are scores of specific problems calling for painstaking studies.

How to get these studies made is a problem of major importance. There are at least three methods of attack. First, staff members on the job may have their work so arranged as to provide time to pursue specific problems in research. Second, workers may be granted leaves of absence for special study of worth-while problems. Third, full-time workers may be employed to do nothing but research in extension.

The first plan should receive more attention than is now the case. Many staff members now on the job have a research turn of mind. They should be encouraged to pursue studies of minor problems. True it is extremely difficult for them to find time to do systematic work apart from their regular tasks—perhaps

"During the 20 years of extension work in agriculture and home economics under the Smith-Lever law and subsequent acts," says Director Ramsower, "administrators, supervisors, and workers generally, both Federal and State, have been so busy with routine details, with blazing new trails in this new adventure in education that little time has been found for serious study and research in the many fields of activity included within the scope of our work. Each day of each worker has been filled to overflowing with a number of important things. County extension agents have been content to meet the pressing problems each day and year brought forth. Specialists have sought to help county workers with their immediate problems. Consequently, little time has been available for systematic study of our fundamental extension problems." In this significant statement Director Ramsower discusses some of the problems and procedure involved in undertaking a systematic study of extension work.

quite out of the question for county extension agents. It can be done, however, for a few State staff members with some careful planning and with proper encouragement from administrators.

The second plan, granting leaves of absence for study, is highly desirable. It is to be hoped that this practice can be greatly extended as time goes on. Many workers on leave want and should be permitted to take regular course work. Many have no leaning toward research. Those who have, however, should be encouraged to select a problem and under graduate school guidance carry it through to some final conclusion.

The third method, employing full time research workers, will in the end result in the highest type of work. If one such person were employed he could not only do research himself but could direct studies made by other members of the staff.

Of course the question of use of funds for research is always involved. Some States, no doubt, have offsetting State monies that can be used for this purpose. There should be no question raised if a regular staff member devotes a liberal portion of his time to research. It

is a part of his task to study problems in the field of content and method. Furthermore, we must work to establish the principle of leaves as a legitimate part of a worker's program to be paid for from extension funds. Surely there are strong arguments for such procedure.

In Ohio we have made a little progress in the study of extension problems. For some years we have been able to grant leaves with full pay through an academic year for from 4 to 6 members of our staff each year (now temporarily abandoned during the period of financial difficulties). This plan unquestionably resulted in great good to the staff. A few were able to make some worth-while studies in the nature of course papers, special problems, and thesis problems for master's or doctor's degrees.

Members of the State staff have been encouraged and some have found time both to pursue some regular course work while on the job and to carry on some more or less extended problem

studies under the direction of some member of the graduate school faculty.

In order to stimulate some study on the part of all members of the State administrative and supervisory staff a graduate course in special problems was approved by the graduate school. Under the direction of the Director of Extension, any member of the State staff could register for this course, select a special problem for a period of one or more quarters, and in the end receive graduate credit for work done.

In order to secure the benefit of the advice and criticism of others, those registered in this course met with the director for one 2-hour period weekly. Plans and progress made were reported by each member. During one entire year, Dr. W. W. Charters of the Bureau of Educational Research met with us to hear reports and direct our thinking and planning on the many problems presented. From 10 to 15 persons registered for this course. It was very difficult to find time to work on the problems selected but many succeeded in turning in some very fine reports.

(Continued on page 134)

A California County Marketing Institute

DURING the month of December 1931, following 2 years of rather disastrous returns to pear growers in California, and Lake County in particular, considerable discussion was overheard at farm-center meetings and other gatherings that something ought to be done about marketing. "The Agricultural Extension Service and our experiment stations have taught us how to produce better and more fruit to the acre, but we need to know more about marketing and distribution", was the oft repeated statement.

Capitalizing on this frame of mind that the growers, shippers, and the general public was in, a meeting was accordingly called by County Agent L. C. Barnard at the agricultural extension office to which were invited 30 prominent county-wide growers, shippers, and packers, regardless of their affiliations with the county farm bureau or the agricultural extension service. At this meeting a well-prepared plan was presented for the holding of a full day and evening marketing institute at the county seat

the following March, using university and State marketing and economic specialists as well as outstanding representatives from the various shipping and packing companies represented in the county. Those in attendance were enthusiastic in their approval of such an institute and immediately set up the necessary organization and groups of committees to prepare for the first annual marketing institute for northern California.

In order to get the full cooperation and loyalty of the shipping concerns and the growers whom they served, about one-half of the speakers invited to speak at the 1931 institute were State representatives of fruit companies operating in Lake County, representing both cooperatives and independent concerns.

Much valuable time was devoted to thoroughly publicizing this meeting through the University News Service, radio, local papers, and in neighboring counties by means of attractive quarter-card posters. The fruit companies, growers' organizations, and farm-center meetings were also very important in disseminating

inating information relative to the institute.

A large number of leading growers and representatives of cooperatives and non-cooperatives were in attendance at the first meeting from Solano, Colusa, Yolo, Sonoma, San Francisco, Alameda, Santa Clara, Sacramento, Mendocino, San Joaquin, and Lake Counties of California.

As a result of the success of the first meeting, equally successful meetings were held in March of the years 1933 and 1934. This meeting has now become an established annual event expectantly looked forward to each year by all agencies concerned including both the growers and fruit-shipping companies.

As a direct result of the 1932 institute, plans were formulated for a pear-marketing curtailment program for California which this year has progressed to such an extent that the pear growers of Oregon and Washington are cooperating with California pear growers in trying to work out a marketing agreement for the Pacific coast pear industry, in cooperation with the Agricultural Adjustment Administration.

Research in Extension

(Continued from page 133)

Some of the problems studied were as follows:

1. Keeping the public informed. A study of methods used by county extension agents in keeping different groups of people informed about the programs in the counties.

2. Types of county committees most effective in carrying on home demonstration work.

3. Types of group organizations of 4-H clubs in Ohio and ages of members involved.

4. 4-H club activities of 4-H club members in Ohio.

5. Factors which determine the proper size of a State staff for extension work. An activity analysis of subject-matter specialists.

6. Activities of local 4-H club advisers in Ohio.

7. How can the subject-matter divisions in home demonstration work be correlated to make a more unified whole?

8. Trends in community development in Ohio.

9. A study of the structural organization of extension service with particular reference to its functioning in the county and local community.

10. An analysis of the activities of county agricultural agents.

The methods used in attacking these problems are shown in the study of an analysis of the activities of county agricultural agents made by O. C. Croy, assistant State club leader, and B. B. Spohn, district supervisor. The problem was to find out the activities in which county agricultural agents now engage and in doing this provide a method whereby the agent can determine the breadth of his own activities and a basis for the construction of a curriculum for the training of agents.

The plan of investigation included (1) a list of the activities of agents of 24 counties as given on the monthly narrative reports for one year. These counties were selected because they represented the different types of agriculture in the State, (2) a list of activities of these agents as given in the annual narrative reports of 1 year, (3) a list of activities made up by interviewing these agents, (4) a collection of literature on agricultural extension work which has to do with the duties of agricultural agents, (5) information from deans of agricultural colleges on any study of activities of extension agents made or being made in their institutions, and (6) a master list of activities made up from the above sources.

Though the investigation has not been completed, the master list has been pre-

pared and checked with one county agent and all literature dealing with activities of county agents has been collected and is on file. The master list has served as a guide for teaching in the two courses in extension methods and in addition the study has shown that extension terminology is not well defined and that the activities of agents are extensive rather than intensive.

Mr. Spohn and Mr. Croy spent many hours with Dr. Charters in outlining and studying this problem. This experience was extremely valuable to them and through them to the entire group participating in these studies. Extension workers are not skilled in the study of problems. Procedure followed here can be used in attacking many problems in extension supervision and administration.

May I add here that the Federal extension office should be commended in its efforts to study various phases of extension organization administration and results. It should be encouraged to expand its work in this field. Likewise, each State should continue and enlarge its work in studying extension problems in a systematic way. Such work must be done if we are to make substantial progress in the field of extension education.

Hot School Lunches

Home Demonstration Agents in Virginia and South Carolina Aid in the Movement for Healthier Childhood

Virginia



THE health and nutrition campaign which was organized in Amherst County, Va., under the auspices of the home demonstration agent, Mary F. Claytor, and the county nurse, in the fall of 1933, was divided into two well-defined sections. The first, better nutrition and school lunches; the second, that of corrected defects and improved health habits. The nutrition work was entirely the responsibility of the home demonstration agent. Plans for the campaign included demonstrations in one-room schools. Four schools of very different types were selected. In each school the hot lunch was worked out in a different way though results were similar.

Shady Glenn is a small school in a very remote section of Amherst County. The school is located in the mountains 5 miles from a highway and about 20 miles from a railroad station. The inhabitants of this community have had few opportunities to learn better nutrition and it has been very hard to obtain adult cooperation, but the school children and the teacher have accomplished a great deal.

In the early fall the home demonstration agent met the older boys and girls and assisted with the canning of soup mixture for the hot lunch. Later a similar day was managed by the teacher. Through this effort a substantial part of the food for the hot lunch was procured. This food was supplemented through the assistance of the relief director who gave two orders a month for canned milk and meat. These orders were O.K.'d by the home demonstration agent and the food was sent directly to the school. Hot lunches were served every day during January, February, and March.

In addition to the fact that a better type of food was made available to these school children, there has been a great deal of training and teaching along the line of better nutrition. The teacher, has correlated her subject matter, teaching nutrition as she teaches reading, writing, and arithmetic. Even the little children in the first grade were encouraged to make A B C booklets allowing each letter to represent a food which should be included in the diet.



Lunch hour in a Virginia school serving a hot dish.

The children have entirely overcome the habit of coffee drinking. Through the efforts of the home demonstration agent and the teacher they have learned the importance of the leafy vegetables and are asking for them to be included in the home garden. The menu in this school consisted of hot soup or cocoa and was served every day during January, February, and March.

Because of the marked increase in attendance the superintendent of schools has lengthened the school term by 1 month, and for the first time in the history of this school, an 8-month term has been allowed. This was accomplished because the improved physical condition of the children resulted in a better school attendance.

Because the work at Shady Glenn is perhaps most outstanding, the school was awarded a prize of \$5, which will be spent for permanent hot lunch equipment.

The agent made 5 visits to each school. Each time she gave an illustrated talk or demonstration on some nutrition topic.

The results in the other three schools were similar but not so far-reaching. At Coolwell the money was raised through the assistance of the parents, and all the food and hot lunch equipment was bought by a committee composed of the teacher and school children. The home demonstration agent advised this committee.

At Maple Run there was 100 percent cooperation from parents, who sent food in glass jars. This food was heated at the school by means of a water bath.

The jars were put into a large boiler at 11 o'clock. At 12 o'clock the jars of hot food were passed to their owners.

At Allen's Creek the home demonstration club sponsored the nutrition work and provided a well-equipped lunch room. Sugar and cocoa were also provided by the club, and milk and vegetables were sent by individual parents each day. Through a definitely worked-out plan, either cocoa or soup was

served. The teacher considers the hot lunch work of great value and reported an average gain by the pupils of 2½ pounds. The highest gain made was 6 pounds. The average gain for the entire group of 135 children included in the 4 schools was 2¾ pounds. The highest gain made by any child was 6¾ pounds.

The county nurse assisted in weighing and recording weights of these children. She did this as she went about her work of correcting defects and improving general health habits. Her report of medical examinations and corrections of defects is very good.

South Carolina

Practically every county in South Carolina has responded to the need for better nutrition among rural school children by providing a hot dish for the school lunch. A concerted effort toward this end was begun a year ago in July when the plan for State-wide organization of hot school lunches in the rural schools

(Continued on page 143)

Forage and Hay for New Hampshire

WHEN New Hampshire farm land "goes back", trees and brush, not grass, are the result. Grass hay was once the most profitable crop the State produced, but that was before the day of tractor, truck, and automobile, and before dairying became a high-pressure agricultural industry.

Today the slogan in New Hampshire is not the national cry of "back to grass and forage." Rather the goal is "ahead to forage and better grass hay."

Turning under poor hay fields and reseeding to alfalfa or clover was the recommendation prior to 1930. Almost 9,000 tons of alfalfa were harvested from 3,900 acres in 1930.

Emphasis shifted to annual legumes in 1930 because of the dairy emergency, their acreage jumping from 1,848 acres that year to 6,523 in 1933. The added yield is estimated to be worth \$80,000. During the same interval the alfalfa and clover acreage continued to pile up,

acres had been seeded to the legume for 10 years; 9½ acres for 4 years.

This "mine" in 1934 "ran out", however. A severe prolonged cold spell following sleet, smothered many legume fields in the State, necessitating replanting and delaying further returns for at least 2 years.

Long-neglected pastures were the bullseye for another campaign shot in 1929. Twenty demonstrations were laid out throughout the State to give visible evidence of the value of top dressing old worn-out grazing areas with chemicals. As a result, farmers fertilized 239 acres of their own in 1930, and 814 in 1931. Practically no fertilizing had been done previously.

Tight money and none at all have geared down the pasture-improvement work but not farmers' appreciation of its value. With Boston under a Federal milk license which is reported to have returned northern New England dairymen \$1,500,000 more from March 15 to June 30 than in the same period a year ago, pasture improvement may get underway again with something of the stride of 1930-31. Five New Hampshire farmers outstanding in this work were featured on the annual farmers' week program this summer in the move for a revival.

New permanent pastures are also being developed with a mixture of sweet-clover, white Dutch clover, Kentucky blue grass, and timothy.



The unprecedented drought which blanketed the center of the country will be felt most keenly in feed and forage crops. The map shows the pasture situation on August 1, 1934. The supply will be adequate for all needs, if efficient distribution is made. A determined effort is being made by extension agents to secure such distribution. Farmers everywhere are garnering and conserving all available hay and forage, including straw, wild hay, corn fodder, or stover. In many parts of the country, good fall and winter pastures are helping to compensate for damaged summer pastures, and preparations are being made for early maturing feed crops in 1935. Farmers in the East and South and other sections having good quality hay or forage are saving it in every possible way for shipment to the drought States.

The hay of a decade ago and earlier was satisfactory for horses, but it never made much of a splash in the milk pail. It is usually cut during July. Research has shown that if it is harvested in June, it makes first-class roughage and actually boosts the milk flow. One farmer who kept records found that he got more milk on an early cut hay ration, yet he saved \$74 on his grain bill during the barn-feeding season.

The drive for better grass hay was begun in 1929 and is estimated to have added \$40,000 a year to the value of the crop.

amounting to 5,000 and 10,000 acres, respectively.

The cumulative effect of about 8 years of extension work has been to double the State's legume acreage, making a grand total of 21,500 acres.

"Thar's gold in them thar acres", Gilbert Thompson, Stratham, old-time grower, might well say of his alfalfa fields. He harvested 64 tons of hay from 11 acres in 1933. His alfalfa crop brought him \$1,732 in 1932, or \$165 per acre. He spent \$12 per acre the next season for fertilizer. One and one-half

THREE sales have been held, one each week, since the Gloucester County hog auction was established, in New Jersey. Virtually all the hog producers in the county have cooperated in the auction which has handled 1,279 animals during the first 3 sales. Not only has the auction secured higher prices for the hogs, but it has given the producers cash at the time of the sale. Buyers and producers alike have found the auction advantageous.

THROUGH scientific research there is being evolved a plan to release one of the "frozen" assets of New Jersey farmers, J. W. Bartlett, dairy husbandman, says that it will aid dairymen to improve their herd management and increase their income per cow. Rich pasture land is this "frozen" asset, and the key to unlock it is fertilizer applied in conjunction with better pasture management.

Relief Measures Bring Permanent Improvements

MUCH of the emergency drought relief work now being carried on will have very definite effects upon the long-time agricultural programs of extension workers. Some of this relief work is based on the rich experience of extension workers gained in their efforts to solve the difficulties faced by rural people. Many phases of the work will be of permanent value to extension programs and will contribute to the betterment of farming operations. The allotment of National, State, and local funds has greatly facilitated relief work. Funds from the 525 million dollar Congressional appropriation are being allotted to relief agencies cooperating in the work, which has resulted in the establishment of many projects of permanent value.

Extension workers with their background of rural experience have been of great aid in forwarding these projects. The United States Department of Agriculture, the Federal Emergency Relief Administration, and the Farm Credit Administration have extended their aid in the relief work individually and cooperatively. These organizations have been allotted money from the Federal relief fund amounting to approximately \$150,000,000 by August 1.

United States Department of Agriculture

The United States Department of Agriculture, through the Agricultural Adjustment Administration, the Extension Service and the various subject-matter bureaus and offices, has actively cooperated with other relief agencies.

The Agricultural Adjustment Administration in cooperation with the Federal Emergency Relief Administration and its Federal Surplus Relief Corporation has been purchasing, shipping, slaughtering, inspecting, and canning beef from ani-

mals purchased in the drought area. Veterinarians from the Bureau of Animal Industry have been inspecting animals for Government purchase and for eradication of tuberculosis and Bang's disease. Animals unfit for human food have been condemned on the farm. The program calls for continuation as long as the emergency exists. A similar program pertaining to sheep has been announced. The preservation of the better breeding cattle for restocking in the drought area

The Agricultural Adjustment Administration has made every effort to speed up the benefit payments of the commodity reduction programs. In the case of the wheat payments a 1-cent increase was made in the second payment. Benefit payments have been of very great aid to farmers who have seen their usual source of farm income wilt and dry up under a scorching sun. This program has in a way served as a form of crop insurance. Extension workers have been depended upon to do the educational work necessary to carry the adjustment plan to the farmers.

The recommendations of the replacement crops section of the Agricultural Adjustment Administration have been followed on over 90 percent of the land operated by cooperating farmers. The planting of these recommended pasture crops, cover crops, and



(Above) Government-owned drought-relief cattle in the Kansas City stockyards ready to be shipped to pastures in Southern States. The average shipment of "relief" cattle to Kansas City was about 12,000 head per day during the height of the cattle buying of which 4,000 were cut out for shipment to the Southern States for grazing—(Right) Farmers loading water from Idle Hour Lake, Altamont, Kans. Beginning the latter part of July, about 12,000 gallons of water were hauled each day for livestock from this lake, which was originally built as a recreation and fishing lake. The electric rotary pump is furnished by the Kansas Emergency Relief Committee and manned by relief workers. Some of the farmers hauled water 8½ miles for their livestock.



will result in the general improvement of herds within the region.

Extension workers have supervised the establishment and operation of cannning centers financed by relief funds. Many of these centers were in operation at the time the cattle buying started. The small units which have been set up in more than 20 States may be carried over into less pressing times to serve as community cannning and recreational centers. Additional cannning operations are being carried on by contract with commercial cannneries.

erosion-preventing crops on the rented and retired acres has contributed to the emergency feed needs created by the drought. The restrictions on these acres were amended so that they might be used to alleviate the feed shortage. In the future more land may be used to produce these dependable feed supplies.

The seed conservation committee, appointed by Secretary Wallace and allotted \$25,000,000 of relief money, is to obtain seed for use in those areas depleted of available seed supplies by the drought. Experienced men of the Bureaus of Plant Industry and Agricultural

Economics are seeking adapted supplies and are recommending their purchase. The Department of Agriculture has sent an expedition into the edge of the Gobi desert in search of drought-resistant grasses.

The Forest Service is cooperating with other organizations in plans for reforestation and erosion control on marginal agricultural lands. The plan for the huge shelter belt reaching from the Canadian border into northern Texas was developed by this service. An executive order has been signed allotting \$10,000,000 to the shelter-belt project from the general relief fund. The money will go into a permanent constructive plan.

Federal Emergency Relief Administration

Relief operations were facilitated by this established organization. A means of reaching State and local authorities was in operation at the time the drought emergency became serious.

The work projects under the direction of the Federal Emergency Relief Administration have been enlarged and new work created. Men employed by the administration are now creating new water supplies, damming streams, hauling and piping water, and further conserving available water supplies. Other work has also been provided for the support of farm families within the drought area. During July and August over \$33,000,000 was expended on work projects in the States most affected by drought. Much of this money went into activities which will have future value to the communities as well as alleviating present emergency conditions.

The Federal Emergency Relief Administration in cooperation with the Agricultural Adjustment Administration announced a feed conservation program in mid-August. It contemplates the purchase of surplus roughage supplies for use within the drought areas. In addition, work projects are being planned to clean up stunted corn and other crops which might be abandoned. Recommendations are being made in the use of trench silos, the conservation of shredded fodder in bales, and the use of certain straws to further add to existing feed supplies.

The expense of shipping, slaughtering, and canning the cattle in the relief cattle buying program is being financed by the Federal Emergency Relief Administration and its Federal Surplus Relief Corporation. Plans have been announced for handling sheep in the same manner.

The Federal Emergency Relief Administration's program for the rehabilitation of rural and urban families has been organized on a long-time plan.

In order that foundation herds of livestock might be preserved in the most severe drought areas the Farm Credit Administration has extended its loan facilities within the region. The first of the feed and forage loans were disbursed early in July and during the following 6 weeks more than 60,000 such loans were made to farmers and stockmen. Local county committees have handled these emergency loans, operating under the regional offices of the Farm Credit Administration.

Loans were made for the purchase of seed for fall planting of wheat, rye, and barley. Other loans were made to enable farmers to ship suitable breeding animals to pasture and to pay rent for such land during the drought period.

Emergency Conservation Work

The Civilian Conservation Corps has been in operation for more than a year, working upon projects of permanent nature. The men employed in this corps have been fighting forest fires and planting trees on burned-over and marginal land. Measures to affect water and soil conservation have been their chief work, gullies have been dammed, terraces built, and windbreaks planted. Much of the work of the organization has been in cooperation with the Forest Service of the United States Department of Agriculture.

Permanent Results are Important Feature

Although conditions exist throughout the drought States necessitating immediate relief action, the relief work has been planned along permanent lines. Such activities as cattle buying are aiding the immediate situation in several ways and its effect on future cattle production will be felt for many years in the improved herds established by restocking from the better type breeding animals, conserved under the plan. Such projects as reforestation and erosion control will prove of value in later agricultural development. They have furnished relief work in an emergency, but are also filled with possibilities for the future.

A NATIVE shrub is to be used in the ornamental plantings about every home in Parsons, Tucker County, W. Va. The civic clubs of the town have adopted "Flame Azalea" as the town plant. It ranges in color from the lightest yellow to deep maroon and is very plentiful in that region.

A Community Center

KINGSTON, Mass., is rapidly realizing and developing the recreational opportunities offered by what many citizens had considered a "white elephant."

On December 20, 1926, the citizens of Kingston dedicated the Reed Community House. The facilities offered by the building were neglected until November 9, 1933. At this time representatives of the various organizations within the community met to consider recreational activities for the community. This meeting was arranged by Miss Mary Dean, local home demonstration agent, as one of a series on recreation with Miss Mary Pozzi, extension specialist in community recreation and organization.

At Miss Pozzi's suggestion a survey of the recreational resources of the community was made. It was found that there were 20 adult and youth organizations using a variety of meeting places.

The expense of maintaining the so-called "community house" was taxing the town \$2,500 each year. The town has a population of 2,500 and if it were costing each citizen a dollar a year, an effort should be made to see that they got their money's worth.

An application was made to the Federal Emergency Relief Administration for funds to support a physical director for the house and community. A program of activities was completed 4 months after the original meeting and placed in effect. The program was completed and carried activities which would be of interest to all the organizations in the community. The committee in charge of the program development meets once a month and sponsors new activities which it believes will be of service to the people of Kingston.

Cooperation between the various organizations using the center has made possible a rapid development during the time since the program was established.

Adequate grounds about the building add greatly to its value in out-of-doors recreational activities and the equipment and space within the building make a variety of indoor programs possible.

ALABAMA home demonstration clubs prepared the material for the July issue of the Alabama Farm Bureau News. In fact they were the news. The issue gives worthy recognition of the year's activity of the home demonstration clubs of the State, and the leaders of this organization. The entire issue is turned over to the farm women, their organization, and their achievements.

Drought and Food Prospects

The Food Situation

NILS A. OLSEN

Chief, Bureau of Agricultural Economics

IN spite of the great drought of 1934, which probably did more damage to crops and pastures than any other drought in our history, the people of the country will have ample food supplies in the coming months. The great diversity and extent of our farm lands make it possible to supply the Nation's food needs in the face of such a drought.

To determine just how much of a food supply was on hand and how much would be available during the coming winter, the Bureau of Agricultural Economics prepared a food balance sheet showing the probable supplies of food grains, meats, dairy and poultry products, fruits, and vegetables.

As to food grains, there is no shortage of rice, but the wheat crop is very short, totaling only 491,000,000 bushels. But as we already have on hand 290,000,000 bushels of carry-over from previous years, this gives us a total supply of 781,000,000 bushels. Normally we use only 625,000,000 bushels, so there is no shortage in wheat.

We will not have the abundant supplies of meat during the coming year, that we had last year. The drought pinch is most severe on feed grains, hay, and pastures giving our farmers only two-thirds the usual amounts of hay and grains to feed their animals. This condition will cut down the production of livestock products. Our most careful estimates indicate that there will be available about seven-eighths as much meat and lard as we had on the average in the past 5 years. The decline will come in the first half of 1935, for now and in the next few months farmers will have to sell for slaughter the animals they cannot feed through the winter.

Supplies of dairy and poultry products will be less than last year. On scanty feed the best dairy cows cannot produce very much, therefore, even the record cow population now on hand will yield smaller supplies of milk than we have been accustomed to. Already milk production is 3 or 4 percent under last year. It will continue to drop until pastures come again next spring. That probably means that less butter and cheese will be produced. We start into the fall season with about one-sixth less dairy products in storage than in the average recent year. On the other

hand, stocks of poultry meats are one-seventh above average, and eggs slightly above, but it is inevitable that poultry and egg production will decline.

Fruits and vegetables will be fairly abundant outside the drought country. The home gardens in the drought area are ruined, and the housewives there will not be able to put as many cans of food away as they usually do. But commercial vegetable production for sale as fresh and stocks of canned vegetables are expected to be one-seventh larger than last

year. Fresh fruits, taking all varieties together, will be less plentiful than last year but no serious shortage is in prospect. Supplies of canned and dried fruits will be only slightly under normal.

The problem this winter will not be of food shortage but one of bringing the afflicted farm families through the winter and leaving them equipped with seed and livestock to carry on in the future; of moving great quantities of foods and feeds from the places of abundance to those of scarcity; and of seeing to it that farm and city families whose buying power has been wiped out do not starve. This is the problem on which we are working with all the facilities at our command.

The Cost of Living

LOUIS H. BEAN

Economic Adviser, Agricultural Adjustment Administration

AS A POSSIBLE indicator of probable food prices and general living costs during the next 12 months, we have made a study of the behavior of price 10 years ago, during 1924-25 when conditions were broadly similar.

Ten years ago changes in our supplies of farm products were somewhat similar to the greater changes in our supplies in prospect at present. The world supply of wheat, the domestic crop of corn, and the slaughter of hogs were sharply reduced. However, forage crops were not nearly so seriously affected as this year.

Farm prices of certain groups of commodities are expected to advance this year. Ten years ago prices of the same groups advanced sharply. At the end of the season grain prices paid farmers were 40 percent above prices paid at the beginning of the season. Meat-animal prices were 33 percent higher; poultry prices 20 percent higher.

But those important rises in farm prices 10 years ago were accompanied by much smaller advances in total retail food costs and a still smaller rise in the general cost of living. The retail cost of foods during that year advanced about 9 percent. But the other living costs, such as clothing, household goods, fuel, and light came down a trifle, and the net result was an advance of only 2½ percent in the total cost of living.

Price changes this year may not exactly follow those of 10 years ago when the situation was generally similar with respect to the food commodities affected. The general economic situation 10 years ago was of course much better. There

was no great unemployment problem. At that time, with business, employment, and wage earnings increasing, a relatively greater advance in retail markets was possible than when a large part of the working population is unemployed or on relief.

Another fact to consider is that 10 years ago there was no governmental agency as the Agricultural Adjustment Administration with power to restore balanced production and with the power and intention to protect consumers against unwarranted advances in food prices.

Still another important factor is that there is no reason for advances in other living costs simply because food prices advance. As a matter of fact, there is a growing attitude among more and more business men that a much higher level of industrial activity might be attained by lowering prices to consumers of industrial products, and this should tend to keep living costs down.

We are gathering other facts constantly and applying them to this study of probable future trends. At present my own personal judgment can be summed up as follows:

While the 1934-35 price developments may not follow exactly the 1924-25 pattern nor show changes of the same size, there is no reason for expecting at present more than a rise of a few percent in living costs by next summer due to increased food prices—a rise that should be amply taken care of in most cases by increased employment and greater wage earnings.

Credit Association Fills Local Need

PROCEEDING on the theory that the satisfied customer is the best advertisement, the Windom Production Credit Association, serving Jackson and Cottonwood Counties in southwestern Minnesota, has made a place for itself among the farmers—and the bankers, as well—in the area it serves. In a report received from its secretary-treasurer, G. W. Schaffer, dated July 7, the association had 140 loans outstanding, all of the borrowers being "satisfied customers"; had 25 other loans pending; and a possibility of 50 additional applications awaiting the movement of fall crops. Had it not been for the drought, Mr. Schaffer believes, the volume of business done by the association would have been much greater. The Farm Credit Administration, St. Paul, Minn., reports that the loans extended by the Windom Association to 130 borrowers, up to June 30, amounted to \$97,586.

"The farmers of the two counties realized, says Mr. Schaffer, that additional credit facilities were essential and decided that cooperation with the Federal Government would be wise." They,

The Windom Production Credit Association is one of about 660 production credit associations serving farmers in all parts of the United States. How this association was organized and how it functions is here described for REVIEW readers by W. P. Kirkwood, extension editor in Minnesota.

therefore, proceeded under the guidance of a Government representative to organize an association, giving much thought to the selection of a board of directors, who would command the confidence of the territory, and who could place the project before the public in a satisfactory light.

The organization having been set up, a publicity campaign was entered upon, which was carried on through the newspapers of the two counties and included both advertising and news items. It also called for personal letters to mortgage debtors whose mortgages seemed desirable to the association, as shown by the records of the office of register of deeds. Information was also given through talks at farm bureau and township meetings and through the use of news material received from the Production Credit Corporation office in St. Paul.

A flood of applications resulted, showing that the campaign had been completely effective in placing the association before the farmers of the two counties. The outcome was not only the good will of the farmers, but also that of the local banks of the territory. "At all times," says Mr. Schaffer, "we have cultivated the good will and friendly feeling of local banks in order that they might know that our intention was to cooperate and not interfere with their program. We believe the banks' friendly relations have meant much to our success."

The association's officers have found the farmers very greatly interested in the opportunity to do business at home, and the interest rate of 5 percent makes a strong appeal. Mr. Schaffer quotes a letter from a farmer which is typical. "We appreciate an arrangement by which we can talk our business over. It is impossible for us to write regarding our difficulties, and wait for a reply." The allowance of a fund to be used in closing small loans immediately is also expected to prove very satisfactory.

Altogether, the Windom association reports an efficient service, satisfactory both to its board and to its patrons.

4-H Boys at Clemson College

THIRTY-FOUR former 4-H club boys, representing 15 percent of the senior class and 19 South Carolina counties, graduated at Clemson College June 5, 1934. Thirty-three percent of the graduates in the School of Agriculture were former club members; 2 percent in the School of Vocational Agricultural Education; and 16 percent in the School of Textiles. There were 4 graduates in the School of Engineering and 1 in the School of Chemistry. All the entomology graduates, 67 percent of the dairy, 57 percent of the agricultural economics, and 50 percent of the animal husbandry graduates were former 4-H club members.

Among these college graduates who were former club members were State prize winners; winners of trips to the National Boys' and Girls' Club Camp, Washington, D.C.; and to the National Club Congress and International Livestock Show, Chicago, Ill.; and a winner of the Moses trophy. Sixteen percent of

these clubsters were listed for honors at the Clemson College Third Annual Scholarship Day May 1, 1934.

According to Dan Lewis, State club leader, these club boys have an average of approximately 3 years' enrollment. Their total gross receipts in 4-H club work amounted to \$19,263.55, with a net profit of \$7,290.11, or an average of \$214.41 per boy—a nice nest egg with which to enter college. The boys were in the club from 1 to 8 years, and they grew calves, bees, cotton, corn, peanuts, potatoes, and sugarcane for their demonstrations. Some of the dairymen of the group already have small herds of dairy cattle as a result of their club work, two of the boys having more than a dozen purebred animals each.

As cadets at Clemson College, these former 4-H club members held responsible positions in the various college organizations. Their zeal for 4-H club work is still very keen. Space forbids quotations from all of them, yet that of

Capt. Carlyle Clayton, who majored in horticulture, is very typical. With 6 years of 4-H club experience this young man, when asked a few days ago what club work had meant to him, replied: "4-H club work has been of immense value to me in that it was the first thing to call my attention to the beauty, pleasantness, and enjoyment to be found in rural life and in nature. The training I received under the 4-H club leaders has served me well, especially during my college days. Club work aided me in keeping my ideals high, my hands active, my mind alert, and my body strong. May 4-H club work increase in its scope and interest, and may its leaders continue the valuable training and encouragement they are giving farm youth."

CONSUMER members of several New Jersey women's clubs will be given an opportunity to see how farm produce is handled in local markets. A tour has been organized which will include several of the outstanding marketing activities of the State.

Louisiana Communities Organize

"WE HAVE but two heritages; the blood which flows in our veins, and the community we live in, and we can better our community heritage", says Mary Mims, extension rural sociologist and community organizer in Louisiana. Citizens of rural Louisiana in 383 active community organizations have discovered how many seemingly big improvements can be gained for themselves and for their sons and daughters by applying their united efforts to common aims and goals. Paying farms, comfortable homes, good highways, better schools, rural parks, choruses, orchestras, dramatic clubs, athletic teams, and many other good things of life mark the progress of the organized communities.

There were 52 community houses in Louisiana before Civil Works Administration funds became available, and now more than 200 commodious buildings house the various community activities in the State. Typical of these organizations is the one at Evergreen in Avoyelles Parish. During the 6 years that this community has been organized, it has missed holding only three of its monthly meetings. The people have built good roads; terraced their farms until Evergreen is one of the best terraced communities in the State; built a community canning house equipped with electric lights, running water, and modern canning equipment (90 men gave one day's work on the building); an agricultural teacher has been obtained for the school; a lovely home-economics cottage has been added to the community equipment; a baby clinic has been organized; and the church and school grounds beautified. Evergreen also boasts a senior and junior chorus, a senior and junior quartet, and two rhythmic bands. The improvements on the school grounds, which would have cost the school board about \$1,000, were done for less than \$100 by the community. These improvements include a lighted recreational court and a fenced and graded school yard.

Cotton Donated

The fathers of the community donated 1,870 pounds of cotton for the community and school library fund. A book-mobile route was established throughout the summer. Reports indicate that not only do the school children read but also everyone in Evergreen reads.

The community scores high in sanitation and health work. All the people

were vaccinated for typhoid last summer after a case was reported in the community. This was the only case of typhoid in the community.

Among the first objectives on the program are a full barn and a full pantry. The secretary's report shows a sufficient supply of corn, potatoes, sweetpotatoes, peas, peanuts, hay, sorghum, and cane sirup stored to supply the community's food and feed requirements. The pantry shelves are amply supplied with thousands of quarts of preserved fruits and vegetables, pork, and beef.

The grade of chickens has been improved, and in 5 years they aim to have a good breed on every farm. Eighteen farmers visited a trench silo to study its worth; there are now six silos in the community. Twenty-eight farmers visited a vetch plot in Arkansas to determine the value of this plant as a soil builder; hundreds of pounds of seed have been planted this year for cover crops.

Fundamentals of Community Life

Louisiana community organizations recognize four fundamentals in community life—the necessity of making a living, the right to good health, attractive civic life, and wholesome recreation. When a community decides to organize, a meeting of the whole community is held. It is assumed that everyone belongs to the community organization; the only way to lose membership is to move from the community. At this meeting two specific economic goals are chosen by the men, such as more terraces or more pastures. The women also pick out two goals to improve the homes of the community. One health goal is set up; one job of civic improvement is undertaken; and some step taken to furnish wholesome recreation for the community. At the end of 2 years, if progress has been made on this temporary program, they begin to build a long-time permanent program for that particular community. All extension work is done through these community organizations, the agents acting as advisers and helpers in formulating the program and putting it into execution.

Each community meets once each month, hears the reports of progress on the program of work, what the home demonstration clubs have accomplished, what the 4-H clubs are doing, how the agricultural projects are progressing, and the work of any other organization func-

tioning in the community. Each meeting includes an educational demonstration and an opportunity to play and have fun together. There are no constitution and bylaws and only three officers—the chairman, cochairman, and the secretary. The activities are many and varied.

The Louisiana Library Commission has offered reading certificates to those who will read 12 books of recognized worth. Two thousand community citizens got their certificates at the short course this summer. About 225 communities offered a story hour for the little folks once a week during the summer season.

Community Day

In Natchitoches Parish where there are 23 organized communities, a community day was celebrated at the Parish Fair. Each of the 23 communities sent a chorus to compete on community day. In the afternoon all sang together in a single chorus 4,000 voices strong. A competent musical director in the parish became interested and gave 3 weeks of his time visiting the various communities and training them in preparation for the gala occasion.

The community work has uncovered much latent talent. In Hurricane community, Claiborne Parish, a tenant farmer was made chairman of the community. The organization was a very active one and soon built a clubhouse as a center for their many activities. In order to produce plays and pageants, a canvas curtain was bought for \$12.50 which the chairman offered to take home. The curtain was returned when they were ready to hang it with a very fine picture of an old mill upon it. Everyone was delighted and surprised for the curtain was really lovely, and no one had ever heard of the chairman's talent for painting. The fame of the curtain spread, and groups of people began to come from Homer, the parish seat, to see it. It is now one of the prized possessions of the community, and its fame draws many visitors. This man is happy in his community work; he has written a play for presentation by the community players, and assisted in the picture work at the folk school which the community holds for a few days each summer.

The community idea has taken hold in Louisiana, and there seems to be no limit to what can be accomplished by the active cooperation of all members of the community in working toward common goals.

Better Babies Club



A Better Baby at 7 months of age.

LAST fall, the county council of home-demonstration clubs of Logan County, Ark., organized a better babies club. This was the result of 3 years of work by the local leaders in nutrition and the home demonstration agent, assisted by the extension nutritionist, Gertrude E. Conant. One hundred and six babies and pre-school children are enrolled in the club.

The growth of interest in better babies was due largely to the work of one of the local leaders, Mrs. Dan A. Hall, of Paris, who has been untiring in her efforts to get mothers interested in modern methods of child care and training. She has been named chairman of the club. She keeps a record of all babies enrolled, sends child care and training literature to each mother, and receives reports each month on the children's development. She is on the lookout all the time to see that no mother or prospective mother is neglected.

In 1931, Miss Conant held a series of local-leader meetings in Logan County at which leaders were given lectures and demonstrations in pre-natal care and feeding, diet of the child from infancy to school age, and training the child in good food habits. These training meetings were attended by 31 local leaders. This club is making its influence felt in every community in the county.



The same baby as pictured above at 16 months of age. He is the son of Mrs. Dan Hall, chairman of the Better Babies Club.

THE 86,000 Negro farmers of Texas are aiding in the solution of their problems with the cooperation of the extension workers. Regular programs of work have been developed by these farmers and their wives.

During 1933 over 12,400 Negro women and girls filled 519,897 cans of vegetables and fruits and dried 546,948 pounds of farm products. In 11 counties, 125 homes purchased all their extra food supplies with money obtained from demonstration poultry flocks.

In the first meat show held for this group of extension cooperators, over 500 entries were listed. Negro farmers during 1933 butchered 2,444 hogs the "A. & M." way and most of this meat was for home use.

Educational Motion Pictures

A POSSIBLE outgrowth of the conference on educational motion-picture programs which was held in Rome during April is the definite plan for the increase and improvement of these media in educational work. The United States Department of Agriculture, Division of Motion Pictures, was represented by C. A. Lindstrom, Associate Chief of the Division. The 45 nations attending the conference discussed the influence of motion pictures on morals and education, and in the field of international relations.

Users of educational films will be considerably aided by a catalog of available material, which the organization plans to compile.

A Long-Time Adjustment Program

(Continued from page 130)

69 times. To aid in bringing about this popularity of "soy" the State experiment station developed the "Illini" variety and tested some 74 varieties that might be adaptable to different areas.

But too much adjustment toward soybean production might cause another unbalanced acreage situation on Illinois farms. To guard against this, the college agronomy department, under the direction of its head, Dr. W. L. Burlison, came forward with new suggestions for the utilization of this rapidly increasing crop. Of these, soybean paint was probably the most significant. Today thousands of bushels of Illinois soybeans are being consumed in the manufacture of soybean-oil paint that is being spread upon everything from corn cribs to the governor's mansion. Some of the first soybean paint was used in an experimental way on the corn cribs at the farm of the College of Agriculture as far back as August 25, 1930. Since then, barns, dwellings, and even structures at the Century of Progress Exposition have been covered with the paint containing as much as 25 to 50 percent soybean oil.

In line with the development of this paint, the experiment station has been working on soybean varieties that will yield a higher percentage of oil in the beans. Processors and commercial firms are interested in beans of the highest oil content. If this can be attained without sacrificing high-acre yields, it is believed that greater and wider consumption of this crop may be achieved. Furthermore,

higher oil content will add to the feeding value of the soybeans.

Comparisons Made

To those who suggested that a shift from harvested crops to pastures and forages would reduce farm incomes, the division of farm management pointed to records of contrary conclusions. Corn Belt farms with a 20 percent reduced corn acreage, replaced with legumes, have produced a little more net income to the acre during the past 8 years than farms with large corn acreages, a farm management survey shows. These farms were located in the heart of the Corn Belt.

The tax problem is still one of the unsolved handicaps in adjustment efforts. It has been suggested that lower tax assessments should be made against land devoted to pasture. Such a reduction would undoubtedly encourage adjustments, particularly in those sections where soil-erosion control is an important factor. This, however, remains a legislative problem to be dealt with by the State's general assembly rather than the College of Agriculture. Its solution, together with other problems that will arise from time to time, will constitute future chapters in the march of agricultural extension work and adjustments in Illinois.

RESEARCH workers of the Soil Survey Division of the U.S.D.A. are starting work in eight counties in Washington to complete a basis for land classification and the determination of land use within the region. The survey will cover nearly 8,000,000 acres of land, an area larger than the entire State of Vermont.

Native Wool Utilized in Women's Camps

WOOL gathering is no longer an aimless sort of occupation for Wyoming women. Last year, when wool was bringing a low price, almost every ranch had some fleeces or unscoured wool stored about the place. In searching for ideas for handicraft in the recreation camps, the idea came to Bernice Forest, clothing specialist, that raw wool might be used in some way. Hooked rugs seemed a possibility to make use of this stored supply of raw wool as well as a chance to boost natural resources of Wyoming. Experiments on scouring, dyeing, and carding the raw wool were all carried out in the wool laboratory on the University of Wyoming campus by the extension specialists. The results of these experiments proved very satisfactory, and the project was assured. Methods for hooking were tested, and it was found that the old-fashioned wooden handled steel hook was most satisfactory in hooking, as wool didn't hold together as rags or yarn did. Experiments also showed that any good commercial dye for use on wool garments could be used in dyeing the raw wool after it was scoured.

In order to simplify matters for the six camps held in the State, enough wool was scoured, dyed, and carded for all of them. The actual demonstration at the camps consisted of scouring wool, dyeing a small quantity of raw wool to

show the method, and then teaching the women how to roll the wool and hook it into the burlap.

Original designs, descriptive of Wyoming, such as trout, trails, Indian paint-brush, ram's head, pine trees, and the like had been prepared by Miss Forest for the women to copy. They were drawn to be used on 6-inch mats, but could be enlarged and applied to full-sized rugs. Wool of every color in the rainbow had been dyed before camp, and the women selected their own color harmonies.

During the handicraft period at camp each woman received a small square of burlap, her hook, design, carbon paper for tracing, and then she selected the color of wool she preferred. To save time, the wool had been previously carded, but cards were on hand to give each woman an opportunity to learn this process. In preparing the wool for hooking the card of wool was rolled between the palms of the hands, stretched as it was twisted until a roll was formed 2 or 3 feet long and about the size of the little finger, or smaller if desired. It was this roll which was used for hooking, though small swatches were used to add bright spots of color in the design; thus no bit of wool need be wasted.

The actual hooking was similar to hooking rags or yarn, working with the steel hook from the right side and pulling the wool loops to the top of the burlap as



To prepare wool for hooking the bat is twisted out into a roll.

far as the desired depth of the pile. If the pile was to be clipped it was a little deeper than that left unclipped. The mats completed by the women were beautiful in color and when clipped gave the appearance of lovely chenille. The edges were hemmed back on the under side in the finishing process.

The response from this work in raw wool has been very interesting. The women see in it a possibility to use the old wool, which has been stored and at the same time produce valuable pure virgin rugs for their homes. The mats made at camp have made attractive flowerpot pads, and hot dish holders. A few women have sold their rugs and mats as a result of their experience started at camp, but so far no active market for this product has been established.

Hot School Lunches

(Continued from page 135)

was presented at the district meetings of home demonstration agents by the extension nutritionist, Minnie M. Floyd. In October further impetus was given to the program when the State emergency relief administrators authorized a program of child feeding in the schools for children of families on relief lists where examination indicated malnutrition. In November, all the organizations interested in the movement got together to work out cooperative plans for providing a hot school lunch in rural schools and by March, 44 counties were serving a hot dish at the noonday meal in at least some of the rural schools.

The plans varied according to local conditions but in general the relief ad-

ministration furnished Government commodities such as eggs, cheese, butter, meat, fruit, cereal products, bread, canned vegetables, and meat from relief canneries. The administration also paid a worker for preparation and service of school lunches and \$1 per hundred enrollment for children on relief.

The children's parents and women's clubs furnished some foods, especially milk; chicken; fresh, canned, dried, and stored vegetables, and equipment such as stoves, boilers, bowls, cups, spoons, pans, and towels. In many instances club women have prepared the hot foods where no paid worker was available.

The home demonstration agent in Alpendale County reports that more schools will probably be added to the program this year and each home demonstration club plans to can vegetable soup for the

hot lunches this year. The quantity canned will be based on the records of last year.

In Darlington County, each farm woman planted an extra row or two of tomatoes, beans, corn, and okra to can for school lunches. In Bucksport, Horry County, the 4-H club has canning days for the school and every club girl in the county is putting up at least one quart for school lunches. Records were kept in Orangeburg County by the supervisors of school lunches to gain an idea of the amounts and kinds of food necessary for serving school lunches in all rural schools of Orangeburg County.

Plans for better equipment and organization for the coming year are being completed by the more than 800 schools which made a start last year and it is planned to develop the work in many more schools.



A Chart Holder and Storage Rack

A CHART rack and holder have been developed in Michigan, according to a suggestion sent in by A. C. Baltzer, extension dairy specialist, for the use and storage of cloth charts. The care and handling of this material is more or less a problem everywhere, and the difficulty sometimes leads to neglecting the use of this valuable extension teaching method. The rack for the storage of the charts will hold about 70 charts and does not require that they be rolled or folded, operations which considerably shorten the life of a chart. The holder is constructed so that the number of charts can be varied, and it holds them in a manner which minimizes the dangers of tearing.

The chart material which has proved most successful at Michigan is a dull white sign oilcloth. The cost of the oilcloth is slightly higher than muslin but it has proved more durable and possesses a greater visibility value. This material comes in a 52-inch width, which has been established as a standard width for their charts.

Grummets, or metal eyelets, size 3, have been found satisfactory, and three of these are placed in the top of each chart. The exact placing of these grummets is important in that they are used in the holder and in hanging the charts on the storage rack. One grummets is placed in the center and one at each edge, about 2 inches from the margin.

The chart holder is made of two pieces of 2 by 2 material and is approximately 56 inches long. Each of these pieces is made half-round so that the chart will not be folded over sharp edges when in use. Three pins are inserted in the flat surface of one of the pieces at distances

corresponding to the distance between the grummetts in the charts. Holes are bored in the other piece so that the pins will fit into them. About 1 inch from the ends of the two pieces one-quarter-inch holes are bored completely through, bolts are inserted, and wing nuts are used to tighten the holder after the charts have been placed on the pins. The pins should not be longer than 2 inches.

The chart storage rack is illustrated and has the general dimensions given. The hooks should be placed to correspond with the holes in the charts and the pins in the holder. They have about 2 inches hanging space between the angle of the hook and the frame of the rack.

This information is being passed on to extension workers as a suggested aid in handling this type of instructional equipment. Old charts can be stored in this manner by placing the grummetts in the proper positions. As an added suggestion a cloth cover may be placed over the storage rack to further protect the charts from exposure.

THE AMERICAN Country Life Association is sponsoring, in connection with its annual conference in November a meeting on November 16 for the consideration of factors essential for successful rural home and community life and for the discussion of suggested activities and objectives. Rural home-makers and rural organizations, including the Extension Service, are invited to participate. Representation from as many States as possible is being urged by the association. Grace E. Frysinger, of the Federal Extension Service, is chairman of the meeting.

Honor 4-H Club Work

The results of activities carried on by 4-H club members during the year will again be featured in the fifth annual 4-H achievement-day radio program. This Nation-wide celebration will be on the air from 12:30 to 1:30 p.m. eastern standard time, November 3. Representatives of the 925,000 4-H boys and girls will tell about the various 4-H enterprises in which they have engaged and the achievements made.

Hundreds of thousands of 4-H boys and girls with their local leaders will gather before the radio to hear the program. In many instances special meetings have been arranged to observe the local club's part in 4-H achievement. Radios will be tuned to one of the 58 stations of the National Broadcasting Co. carrying the programs organized jointly by 45 States and the United States Department of Agriculture.

The program will be divided into three periods. The first and last 15 minutes of the hour program will be broadcast over the entire network of 58 stations and will originate from Washington, D.C. These two periods will carry speakers of national prominence and music by the United States Marine Band. The half-hour period between the two Federal portions of the broadcast will be devoted to programs of local achievement presented by the cooperating States. During this time the network of stations will be dissolved and each station will carry its own local achievement program.

ILLINOIS farmers have organized 800 associations to cooperate with the various Farm Credit Administration loan branches. Farmers in the State expect to make every use of the Farm Credit organization to further their agricultural activities. Special attention for loans to cooperatives is being given by the organization. "The Farm Credit Administration, through the banks for cooperatives, is assisting cooperative marketing associations to secure ample credit facilities and also is assisting them in marketing their commodities effectively", says C. H. James, manager of one of the large cooperatives in the State.

DURING May, 540 New York dairy-men enrolled in the "mail order" cow-testing service which operates in 52 counties of the State. Reports are treated as confidential and this policy has encouraged farmers to enroll. This is another service which extension workers are making available, a research service for farmers at an average cost of about 12 cents a cow per month.

Research and Extension— A Working Alliance

C. W. WARBURTON
Director of Extension Work

Extension work has a practical working alliance with scientific research. It came into being to bridge the gap between the laboratory and the farmer. Its responsibility is to get the results of scientific experiments to the farmer quickly and efficiently.

Just how valuable this alliance has been in Illinois is explained in the first article of this issue of the REVIEW. With the close correlation maintained, the acute need for an adjustment in agriculture became apparent and a long-time adjustment program was developed in Illinois.

Such coordination of science and extension was never more needed nor more desired than now. The Secretary of Agriculture and the administrators of the Agricultural Adjustment Act have repeatedly endorsed it. The act itself was based on a long series of research studies. Long years of conscientious study by scientists of the United States Department of Agriculture and experiment stations brought to light data on the economics of production and marketing and their effect on prices and farm income which resulted in the Adjustment Act.

The betterment of farming depends upon the continuous accumulation of such fundamental facts. Scientific research is a big job. Likewise, putting the results of investigations into common practice as an aid in the solution of farm problems is a big job. As I look back over the years, I am impressed with the success of the Extension Service in interpreting and applying scientific discoveries to farm conditions.

The value of swine sanitation, discovered through a study of swine diseases by veterinarians at the Department of Agriculture and the experiment stations is now common knowledge on almost any farm in the Corn Belt.

The improvement of market milk through sanitation, cooling, and handling methods was made possible because of bacteriological studies of milk and the adaptation of laboratory methods to practical conditions on the farm.

Much headway has been made in the control of pellagra, through the effort of home demonstration agents in searching out those suffering from the disease and bringing the information and the opportunity for the right diet to cure it.

The bad effects of depression diets, especially on the health of children, have been lessened considerably by the efforts of home demonstration agents who carried the information on low-cost but adequate diets to the farm homemakers.

Some other of the numerous examples which may be selected at random are the copper carbonate treatment of seed wheat for stinking smut, the value of legume hay in milk production, the control of Bangs disease and tuberculosis in cattle, and the fattening of younger cattle for market in which the contribution of 4-H baby beef clubs has been considerable.

Because of the emergency activities now carried on by extension workers, farmers have become more aware of the need and value of educational work of this character. More than ever do they realize that the extension agent is a sympathetic, trained adviser, familiar with local conditions and problems, and backed by the great fund of information at the disposal of the United States Department of Agriculture and the State experiment stations. It is my hope that the necessity for closer cooperation between all agencies that has arisen as a result of the emergency will serve to strengthen the bond that exists between research and extension.



NEW material is constantly being developed by the Agricultural Adjustment Administration in cooperation with the Extension Service to aid in the discussion of adjustment objectives and plans.

Among the visual material and publications now available are the following:

Film Strip Series

(Price of each, 36 cents)

| | No. Frames |
|---|------------|
| 207. <i>The Agricultural Adjustment Program for the South</i> | 47 |
| 321. <i>The Farmer and Our Foreign Market</i> | 20 |
| 323. <i>World Wheat and the American Farmer</i> | 14 |
| 324. <i>The Hog-Corn Problem, 1933-34</i> | 34 |
| 325. <i>The Cotton Problem</i> | 32 |

The film strips are available for loan or purchase at the price given. Requests for information regarding film strips or for copies of discussion statements listed should be sent through the office of the State extension director to—

EXTENSION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C.